

## ston Wremina (Alowe

® © 1969, Globe Newspaper Co. 288-8000

MONDAY, JULY 21, 1969

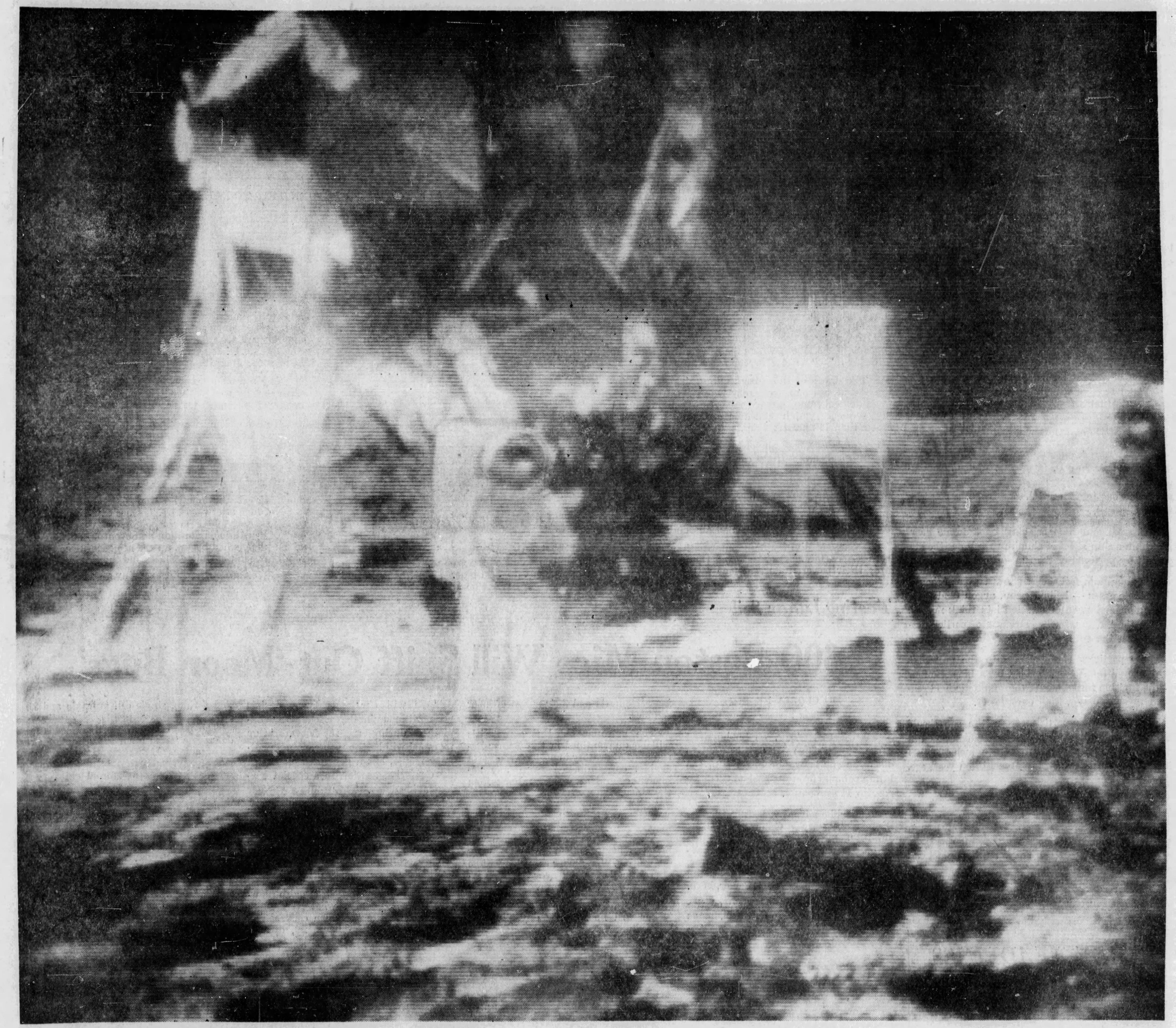
42 PAGES — 10 CENTS



Stock Markets Closed

## EXTRA-Russia's Luna 15 Down on Moon Surface, Feared Damaged

## Job Done, Astronauts Take Off



'Proudest day of our lives' . . . Astronauts Armstrong and Aldrin listen to President Nixon's message. (AP)

Globe Wire Services

manned Russian spacecraft Luna 15 ing." landed today on the Moon's Sea of Crisis, 500 miles from the Apollo 11 Lunar module and its two American astronauts, Jodrell Bank Observatory reported.

Western scientists speculated the Russian ship is on a robot rock-collecting mission to the Moon and will be brought back to Earth.

But before landing, it baffled the world by circling the Moon for more than five days - and letting pass the chance of landing before the Apollo 11 touched down last night.

The landing was reported by the giant Jodrell Bank Radio Astronomy Observatory near Manchester, which has tracked the Luna 15 probe closely since it was launched July 13, just three days before the Apollo 11 blastoff.

Space scientist Sir Bernard Lovell, director of the observatory said the

Russian spacecraft stopped signaling in MANCHESTER, Eng. - The un- a manner "appropriate to that of land-

Lovell said at 12:45 p.m. Luna 15

was still "dead silent."

He added that Jodrell Bank scientists were "slightly bothered" by one factor: records indicate Luna's radio transmitting device had been traveling at 300 m.p.h. when the signals stopped and "it is unlikely that anything could have survived such an impact."

But he said this did not necessarily indicate a complete crash landing, that it was possible the radio transmitter had been programed to switch off at some point prior to touchdown or that "something was ejected that would continue operating.

Asked if it was a hard or soft landing, he said, "We shall have to wait and see if we get more signals to see if it lifts off again."

LUNA Page 14



NEIL ARMSTRONG ... one great leap



EDWIN ALDRIN ... beautiful, beautiful

By VICTOR K. McELHENY Staff Writer

SPACE CENTER, Houston - The spacecraft Eagle lifted safely from the lunar surface at 1:54 p.m. today and soared into orbit for rendezvous later with the mother ship, Columbia.

The ascent propulsion system worked perfectly in what was a do-or-die situation.

If astronauts Neil Armstrong and Edwin Aldrin had not achieved orbit there would have been no hope of their ever rejoining Michael Collins, who was piloting Columbia above them.

The ascent stage weighed 5 tons at liftoff, 21/2 tons of which was fuel, burned in reaching orbital insertion about 11 miles above the Moon.

Armstrong and Aldrin performed coolly and dispassionately during the critical ascent, as they have throughout the Apollo mission.

"Beautiful," Aldrin said, seconds after ignition.

"Very smooth. A very quiet ride," he told mission control.

Mission control told Eagle three minutes after

liftoff, "Everything is looking good. You are down the track."

It was all or nothing. There is only one ascent engine on the module.

The engine burns two types of fuel which ignite

on contact. NASA scientists tested the propulsion system

hundreds of times.

The docking maneuver with Columbia was scheduled for 5:30 p.m. After that, all the astronauts' activity will be concentrated on getting home, bringing to a climax the nation's space effort.

It is eight years and two months since the late President Kennedy set this nation the challenge of landing a man on the Moon and returning him safely to Earth before this decade was out.

The ascent engine of Eagle, the Apollo lunar module, is designed to push with a thrust of 3500

The motor is propelled by a mixture of two types of hydrazine fuel. The compound nitrogen tetroxide is used as a source of oxygen. The same propellants are also used in all other motors of the Apollo spacecraft.

APOLLO Page 2

